

IN THE CLAIMS:

1. (cancelled)

2. (currently amended) A muscle trainer for exercising ~~a weaker of two~~ muscles of a person moving the muscle trainer, wherein, if the ~~two~~ muscles were of appropriate strength, the ~~two~~ muscles would desirably apply forces ~~in substantially opposite directions~~ to an implement to maintain the implement in a desired movement path as the implement is gripped and moved by the person in performing a useful or recreational function. the muscle trainer thereby training the muscles to consistently maintain the implement in the desired movement path during performance of the useful or recreational function. the muscle trainer comprising:

a body having a shape and a weight distribution configured to simulate the shape and weight distribution of an implement selected from the group consisting of golf clubs, baseball bats, softball bats, tennis rackets, racket ball rackets, weight throwing devices, mauls and hammers;
a grip structure: and

a force generator disposed on the body and spaced away from the grip structure. the force generator positioned for urging the body to move with respect to the grip structure, the force generator comprising a motor coupled to a blade assembly in a direction away from the force direction ~~which the weaker muscle would normally apply to the implement in the movement thereof by the person.~~

3 - 4. (cancelled)

5. (previously presented) The muscle trainer as set forth in claim 2, wherein the body comprises a shaft, and the grip structure comprises a grip surface on the shaft.

6. (previously presented) The muscle trainer as set forth in claim 5, wherein the force generator generates a force at an angle with respect to the shaft.

7. (previously presented) The muscle trainer as set forth in claim 6, wherein the force generator generates a force that is substantially perpendicular to the shaft.

8. (currently amended) The muscle trainer as set forth in claim 2. wherein the ~~force generator comprises a motor attached to the body; and~~ blade assembly comprises a propeller attached to

the motor in such a position that, upon operation of the motor, the propeller is operated to urge the distal end of the body to move with respect to the grip structure~~in the direction away from the force direction which the weaker muscle would normally apply to the muscle trainer in the movement thereof by the person.~~

9. (original) The muscle trainer as set forth in claim 8, which further comprises a controller for controlling the operation of the motor to effect rotation of the propeller in either of two rotational directions.

10. (previously presented) The muscle trainer as set forth in claim 8 further comprising:
the body having a passage therein extending at least partially between the proximal end and the distal end; and
a power cord having portions thereof located within the passage and having a first cord portion connected to the motor, and a second cord portion being connectable to an electrical power source.

11. (original) The muscle trainer as set forth in claim 10, which further comprises an electrical switch electrically connected to the motor and the electrical power source for facilitating a selectively operable connection of the electrical power source to the motor.

12. (original) The muscle trainer as set forth in claim 11, wherein the electrical switch is electrically structured to facilitate the selective operation of the motor in either of a first rotational direction and a second rotational direction.

13. (previously presented) The muscle trainer as set forth in claim 8 further comprising a controller connected to the motor for selectively varying the speed of operation of the motor.

14. (original) The muscle trainer as set forth in claim 8, which further comprises a shroud substantially enclosing the propeller.

15. (cancelled)

16. (withdrawn) The muscle trainer as set forth in claim 4, wherein the body comprises a first section and a second section, and a coupler for coupling the first and second sections together at a juncture of the first and second sections, the second section extending from the first section at the juncture.

17. (withdrawn) The muscle trainer as set forth in claim 16, wherein the first section is adjustably coupled by the coupler to the second section so that the first and second sections can be located selectively in different angular positions relative to each other.

18. (cancelled)

19. (withdrawn) The muscle trainer as set forth in claim 18, which further comprises a coupler for coupling the first and second sections together at the juncture of the first and second sections.

20. (withdrawn) The muscle trainer as set forth in claim 18, wherein the second section extends angularly from the first section.

21. (withdrawn) The muscle trainer as set forth in claim 18, wherein the second section extends perpendicularly from the first section.

22. – 23. (cancelled)

24. (withdrawn) The muscle trainer as set forth in claim 19, wherein the first section is adjustably coupled by the coupler to the second section so that the first and second sections can be located selectively in different angular positions relative to each other.

25. - 26. (cancelled)

27. (withdrawn) A muscle trainer for exercising a weaker of two rotational muscles of a person moving the muscle trainer, wherein, if the two rotational muscles were of appropriate strength, the two rotational muscles would desirably apply rotational forces in substantially opposite directions to the muscle trainer being moved by the person to assist in normally maintaining desired rotation of the muscle trainer during the movement thereof, the muscle trainer comprising:

a body having a first section extending in a first axial direction and a second section joined to the first section at a juncture, the second section extending in a second axial direction that is different from the first axial direction;

a grip structure disposed on the first section; and

a force generator located on the second section and positioned for urging the second section of the body in a third direction that is substantially perpendicular to the second axial direction, thereby creating a rotational force about the first axial direction in opposition to the rotational force that the weaker rotational muscle would normally apply to the muscle trainer in the movement thereof by the person.

28. (withdrawn) The muscle trainer as set forth in claim 27, which further comprises a coupler for coupling the first and second sections together at the juncture of the first and second sections.

29. (withdrawn) The muscle trainer as set forth in claim 27, wherein the second section extends angularly from the first section.

30. (withdrawn) The muscle trainer as set forth in claim 27, wherein the second section extends perpendicularly from the first section.

31 - 32. (cancelled)

33. (withdrawn) The muscle trainer as set forth in claim 28, wherein the first section is adjustably coupled by the coupler to the second section so that the first and second sections can be located selectively in different angular positions relative to each other.

34 – 45. (cancelled)

46. (withdrawn) A method of exercising at least a non-dominating swing muscle of two opposing swing muscles typically used by a golfer when attempting to swing a golf club in an ideal club shaft plane, where the non-dominating swing muscle applies a non-dominating swing force to the golf club in a non-dominating swing force direction, and a dominating swing muscle of the two opposing swing muscles applies a dominating swing force in a dominating swing force direction to the golf club

which is opposite the non-dominating swing force direction, and exceeds the non-dominating swing force, the method comprising:

swinging a golf-club simulator by the golfer in a swing path normally swung by the golfer when swinging a golf club;

determining whether the swing path of the golf-club simulator is outside of a desired swing path due to the non-dominating swing muscle allowing the dominating swing muscle to pull the simulator in the dominating swing force direction away from the desired swing path;

applying an external force to the golf-club simulator independently of any force applied by the golfer to further urge the simulator in the dominating swing force direction; and

using the non-dominating swing muscle to pull the golf-club simulator against the external force in the non-dominating swing force direction toward the desired swing path to thereby exercise the non-dominating swing muscle.

47. (withdrawn) The method as set forth in claim 46, wherein the golfer further exercises at least a non-dominating rotational muscle of two opposing rotational muscles typically used by a person when attempting to rotate the golf club through a desired rotational distance while swinging the golf club in a swing path, where the non-dominating rotational muscle applies a non-dominating rotational force to the golf club in a non-dominating force direction, and a dominating rotational muscle of the two opposing rotational muscles applies a dominating rotational force to the golf club in a dominating rotational force direction to rotate the golf club, which is opposite the non-dominating rotational force direction, and exceeds the non-dominating rotational force, the method comprising:

rotating the golf-club simulator while swinging the simulator;

determining whether the rotational distance of the golf-club simulator is greater than a desired rotational distance due to the non-dominating rotational muscle allowing the dominating rotational muscle to rotate the simulator in the dominating rotational force direction further than the desired rotational distance;

applying an external force to the golf-club simulator independently of the golfer to further urge the simulator in the dominating rotational force direction; and

using the non-dominating rotational muscle to rotate the golf-club simulator in the non-dominating rotational force direction to thereby exercise the weaker muscle.

48. (withdrawn) A method of exercising at least a non-dominating rotational muscle of two opposing rotational muscles typically used by a golfer when attempting to rotate a golf club through a desired rotational distance, where the non-dominating rotational muscle applies a non-dominating rotational force to the golf club in a non-dominating force direction, and a dominating rotational muscle of the two opposing rotational muscles applies a dominating rotational force to the golf club in a dominating rotational force direction to rotate the golf club, which is opposite the non-dominating force direction, and exceeds the non-dominating rotational force, the method further comprising:
rotating a golf-club simulator;
determining whether the rotational distance of the golf-club simulator is greater than a desired rotational distance due to the non-dominating rotational muscle allowing the dominating rotational muscle to rotate the simulator in the dominating rotational force direction further than the desired rotational distance;
applying an external force to the golf-club simulator independently of the golfer to further urge the simulator in the dominating rotational force direction; and
using the non-dominating rotational muscle to rotate the golf-club simulator in the non-dominating rotational force direction to thereby exercise the weaker muscle.

49. (withdrawn) A method of exercising two human-anatomy muscles which typically cooperate to perform a prescribed task, which comprises the steps of:
exercising, at a prescribed level, one muscle of the two muscles; and
simultaneously with the exercising of the one muscle, exercising another of the two muscles at a level greater than the prescribed level.

50. (withdrawn) The method of exercising as set forth in claim 49 further comprising the steps of:
determining which is a stronger muscle of the two muscles;
determining which is a weaker muscle of the two muscles;
exercising the stronger muscle at the prescribed level; and
exercising the weaker muscle at the level greater than the prescribed level.

51. (withdrawn) The method of exercising as set forth in claim 49, wherein the one muscle of the two muscles is a first group of muscles. and the another muscle of the two muscles is a second group of muscles.

52. (withdrawn) A method of exercising two groups of human-anatomy muscles, where the two groups of muscles typically cooperate to perform a prescribed task; which comprises the steps of:

exercising, at a prescribed level, one of the two groups of muscles; and
simultaneously with the exercising of another of the two groups of muscles, exercising the another
of the two groups of muscles at a level greater than the prescribed level.

53. (withdrawn) The method of exercising as set forth in claim 52, which, prior to exercising the two groups of muscles, further comprises the steps of:

determining which of the two groups of muscles is a stronger group of muscles:

determining which of the two groups of muscles is a weaker group of muscles;

exercising the stronger group of muscles at the prescribed level; and

exercising the weaker group muscles at the level greater than the prescribed level.

54. (withdrawn) The method of exercising as set forth in claim 52, wherein, with respect to the human anatomy, a first of the two groups of muscles is formed at least by muscles in the back of a hand of one arm and an outside of the forearm of the one arm, and a second of the two groups of muscles is formed at least by muscles in the palm of a hand of another arm and the inside of the forearm of the another arm.

55. (withdrawn) The method of exercising as set forth in claim 52, wherein, with respect to the human anatomy, a first of the two groups of muscles includes at least the carpi radialis longus and brevis. and the carpi ulnaris. and a second of the two groups of muscles includes at least the flexor carpi ulnaris and the flexor profundis and superficialis.

56. (withdrawn) The method of exercising as set forth in claim 52. wherein, with respect to the human anatomy, a first of the two groups of muscles includes at least the pronator

teres and the pronator quadratus, and a second of the two groups of muscles includes at least the supinator and the brachioradialis.

57. (withdrawn) The method of exercising as set forth in claim 49, wherein the task is swinging a golf club.

58. (withdrawn) The method of exercising as set forth in claim 52, wherein the task is swinging a golf club.

59. (withdrawn) The method of exercising as set forth in claim 49, wherein the task is swinging a tennis racket.

60. (withdrawn) The method of exercising as set forth in claim 52, wherein the task is swinging a tennis racket.

61. (withdrawn) The method of exercising as set forth in claim 49, wherein the task is swinging a baseball bat.

62. (withdrawn) The method of exercising as set forth in claim 52, wherein the task is swinging a baseball bat.

63. (withdrawn) The muscle trainer as set forth in claim 2, wherein the body comprises a first section, a second section and a coupler for coupling the first and second sections together at a juncture of the first and second sections, the second section extending from the first section at the juncture.

64. (withdrawn) The muscle trainer as set forth in claim 63, wherein the first section is adjustably coupled by the coupler to the second section so that the first and second sections can be located selectively in different angular positions relative to each other.

65. (withdrawn) The muscle trainer as set forth in claim 63 wherein the second section extends perpendicularly from the first section.

66. (withdrawn) The muscle trainer as set forth in claim 63 wherein the grip structure is located adjacent the first section.

67. (withdrawn) The muscle trainer as set forth in claim 63 wherein the force generator is connected to the second section.

68. (withdrawn) The muscle trainer as set forth in claim 63, wherein the force generator generates a force substantially perpendicular to the second section.

69. (cancelled)

70. (withdrawn) The muscle trainer as set forth in claim 27, wherein the body has a shape and a weight distribution configured to simulate the shape and weight distribution of an implement selected from the group consisting of golf clubs, baseball bats, softball bats, tennis rackets, racket ball rackets, weight lifting devices, weight throwing devices, mauls and hammers.

71. (withdrawn) The muscle trainer as set forth in claim 27, further comprising a coupler for coupling the first and second sections together at the juncture of the first and second sections.

72. (withdrawn) The muscle trainer as set forth in claim 71, wherein the first section is adjustably coupled by the coupler to the second section so that the first and second sections can be located selectively in different angular positions relative to each other.

73. (withdrawn) The muscle trainer as set forth in claim 27, wherein the second axial direction is substantially perpendicular to the first axial direction.

74. (currently amended) A muscle trainer for exercising ~~a weaker of two~~ muscles of a person moving the muscle trainer, wherein, if the ~~two~~ muscles were of appropriate strength, the ~~two~~ muscles would desirably apply forces ~~in substantially opposite directions~~ to the muscle trainer to maintain the muscle trainer in a desired movement path as the muscle trainer is gripped and moved by the person, the muscle trainer thereby training the muscles to maintain the desired movement path while the person moves the muscle trainer, the muscle trainer comprising:

an elongate body having a proximal end, a distal end and a longitudinal axis extending between the proximal and distal ends;

a grip formed on the elongate body; and

a force generator disposed on the elongate body for urging the body to move with respect to the grip, the force generator comprising a motor coupled to a blade assembly in a direction away from the force direction which the weaker muscle would normally apply.

wherein the muscle trainer is free of projections or structures that extend in a direction perpendicular to the longitudinal axis of the elongate body, which projections or structures may interfere with a wrist or arm of the person as the person holds the grip with at least one hand and moves the muscle trainer.

75. (previously presented) The muscle trainer as set forth in claim 74, wherein the elongate body comprises a shaft, and the grip comprises a grip surface on the shaft.

76. (previously presented) The muscle trainer as set forth in claim 74, wherein the force generator generates a force at an angle with respect to the longitudinal axis of the elongate body.

77. (previously presented) The muscle trainer as set forth in claim 74, wherein the force generator generates a force that is substantially perpendicular to the longitudinal axis of the elongate body.

78. (currently amended) The muscle trainer as set forth in claim 74, wherein the ~~force generator comprises a motor attached to the elongate body; and a~~ blade assembly comprises a propeller attached to the motor in such a position that, upon operation of the motor, the propeller is operated to urge the distal end of the elongate body to move with respect to the grip in the direction away from the force direction which the weaker muscle would normally apply to the muscle trainer in the movement thereof by the person.

79. (previously presented) The muscle trainer as set forth in claim 78, which further comprises a controller for controlling the operation of the motor to effect rotation of the propeller in either of two rotational directions.

80. (previously presented) The muscle trainer as set forth in claim 78 further comprising: the elongate body having a passage therein extending at least partially between the proximal end and the distal end; and a power cord having portions thereof located within the passage and having a first cord portion connected to the motor, and a second cord portion being connectable to an electrical power source.

81. (previously presented) The muscle trainer as set forth in claim 80, which further comprises an electrical switch electrically connected to the motor and the electrical power source for facilitating a selectively operable connection of the electrical power source to the motor.

82. (previously presented) The muscle trainer as set forth in claim 81, wherein the electrical switch is electrically structured to facilitate the selective operation of the motor in either of a first rotational direction and a second rotational direction.

83. (previously presented) The muscle trainer as set forth in claim 78 further comprising a controller connected to the motor for selectively varying the speed of operation of the motor.

84. (previously presented) The muscle trainer as set forth in claim 78, which further comprises a shroud substantially enclosing the propeller.

85. (cancelled)

86. (new) The muscle trainer as set forth in claim 2 wherein the motor and blade assembly comprise a jet engine.

87. (new) The muscle trainer as set forth in claim 74 wherein the motor and blade assembly comprise a jet engine.

88. (new) The muscle trainer as set forth in claim 2 wherein the motor comprises an electric motor.

89. (new) The muscle trainer as set forth in claim 74 wherein the motor comprises an electric motor.

90. (new) A muscle trainer for exercising muscles of a person moving the muscle trainer, wherein, if the muscles were of appropriate strength, the muscles would desirably apply forces to an implement to maintain the implement in a desired movement path as the implement is gripped and moved by the person in performing a useful or recreational function. the muscle trainer thereby training the muscles to consistently maintain the implement in the desired movement path during performance of the useful or recreational function, the muscle trainer comprising:

a body having a shape and a weight distribution configured to simulate the shape and weight distribution of an implement selected from the group consisting of golf clubs, baseball bats, softball bats, tennis rackets, racket ball rackets, weight throwing devices, mauls and hammers; a grip structure; and

a force generator disposed on the body and spaced away from the grip structure, the force generator positioned for urging the body to move with respect to the grip structure, the force generator comprising a device for developing a pressurized media and for discharging the pressurized media from the device.

91. (new) The muscle trainer as set forth in claim 89 wherein the device for developing a pressurized media comprises a motor and blade assembly.

92. (new) The muscle trainer as set forth in claim 89 wherein the device for developing a pressurized media comprises a motor and a propeller.

93. (new) The muscle trainer as set forth in claim 89 wherein the device for developing a pressurized media comprises a jet engine.

94. (new) The muscle trainer as set forth in claim 89 wherein the device comprises an electric motor.